

Application No. 09/813,314

REMARKS

Claim Rejections

Claims 1-15 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Bond et al. (U.S. Patent 5,421,798).

Drawings

It is noted that no Patent Drawing Review (Form PTO-948) was received with the outstanding Office Action. Thus, Applicant must assume that the drawings are acceptable as filed.

New Claims

By this Amendment, Applicant has canceled claims 1-15 and have added new claims 16-30 to this application. It is believed that the new claims specifically set forth each element of Applicant's invention in full compliance with 35 U.S.C. §112, and define subject matter that is patentably distinguishable over the cited prior art, taken individually or in combination.

The new claims recite a passive repeating plyometric muscle strengthening method that includes the following steps: positioning a trainee on a pedal, moving the pedal up and down repeatedly under a load for exercising, and burdening the trainee with a continuous load to perform plyometric and eccentric contraction muscle training in a short time with a large amount of acting units. The method further includes the step of moving the pedal up and down is set at a speed between 1 and 1000 times per minute. The moving step is carried out by slipping the pedal (1) over a plurality of upright posts (55) on a surface of a plate seat (7), and moving the pedal (1) up and down by an electric motor (2). The burdening step includes a load bearing rack (50) provided on the upright posts (55). In one embodiment of the present invention, the step of moving is carried out by setting a rotating rate of the motor (2) between 1 rpm and 1000 rpm. In another embodiment of the present method, the step of moving is carried out by controlling the rotating rate of the motor (2) by a variable resistance adjuster. In another embodiment, the electric motor (2) drives a rotating wheel (22). A follower rod (24) has a first end linked with the pedal (1) and a second end linked eccentrically to the rotating wheel (22). In a further

Application No. 09/813,314

embodiment of the present invention, the step of moving includes adjusting an amplitude of the up and down motion of the pedal (1).

Further, the present invention recites claims to a passive repeating plyometric muscle strengthening apparatus that has a pedal (1), a plurality of upright posts (55), a seat plate (7) and a power mechanism (2, 22, 24). The plurality of upright posts (55) are slidably connected to the pedal (1). A load bearing rack (50) is provided on the upright posts (55). The seat plate (7) is connected to the upright posts (55) and the load bearing rack (50). The power mechanism (2, 22, 24) is for driving the pedal in an up and down motion at a controlled speed. The power mechanism is provided with a device adapted for controlling an amplitude of up and down moving and a rotating rate of the pedal (1). The power mechanism includes an electric motor (2) provided below the pedal (1) to drive a rotating wheel (22) and a follower rod (24). The follower rod (24) has a first end linked with the pedal (1) and a second end linked eccentrically to the rotating wheel (22). The rotating rate of the electric motor is controlled by a variable resistance adjuster. The amplitude of up and down motion of the pedal (1) is determined by the length of the follower rod (24) and the position that the follower rod (24) is connected eccentrically to the rotating wheel (22). The load bearing rack (50) is comprised of a pair of "H" shaped rack members (51, 52) that are provided respectively to lines of adjustment holes for receiving holding rods (53, 54) therein.

In another embodiment of the present invention, the seat (7) is provided on a bottom surface thereof with rollers (71) at the four corners and with a screw foot (72). In another embodiment of the present invention, the electric motor (2) is set at a rotating rate between 1.5 rpm and 150 rpm. Further, the controlled speed of repeated up and down motion of the pedal (1) is set between 30 and 300 times per minute.

The cited reference to Bond et al. disclose a chain evaluation and exercise system. The apparatus (20) is supported by a frame (30) which includes a base portion (33), side beams (34, 36) and cross beams (35, 37). The frame also supports a seat (31). Two pedal assemblies (40, 42) are positioned within reach of the seat (31). Each pedal assembly (40, 42) is mounted to a sled (50, 52). The sleds (50, 52) are mounted to double side guide tracks (54, 56) which are secured

Application No. 09/813,314

to beams (34, 36) of the frame (30). Each sled (50, 52) is coupled to a belt (60, 62). Each belt (60, 62) wraps around a rear pulley (64, 66) and a front pulley (68, 69), respectively. Two servo motors (80, 82) provide the resistance load and force to the pedal assemblies (40, 42) being transmission assemblies (70, 72).

The present invention is clearly distinguishable from Bond et al. Bond discloses two pedal assemblies whereas the present invention has one pedal. Further, the pedal assemblies in Bond move horizontally whereas the pedal in the present invention moves vertically. Additionally, in the present invention the pedal is slidably mounted on a plurality of upright posts, which are not taught by Bond. Therefore, the structural differences discussed above, Applicant respectfully submits that the present invention is distinguishable from Bond.

Version With Markings To Show Changes Made

Attached hereto is a marked-up version of the changes made to the application by the current amendment. The attached document is captioned VERSION WITH MARKINGS TO SHOW CHANGES MADE.

Summary

In view of the foregoing amendments and remarks, Applicants submit that this application is now in condition for allowance and such action is respectfully requested. Should any points remain in issue, which the Examiner feels could best be resolved by either a personal or a telephone interview, it is urged that Applicants' local attorney be contacted at the exchange listed below.

Respectfully submitted,

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